Service Manual

Model - XL50EC

Grilled Chicken Oven with Semi-automatic Cleaning System

Blodgett Oven Co. ~ 44 Lakeside Ave., Burlington, VT 05401 ~ 800-331-5842 ~ www.blodgett.com ~ 12/1/08

BLODGETT®

44 Lakeside Avenue, Burlington Vermont 05401 U.S.A.
Telephone: 1-(800)331-5842 (802)860-3700 • Fax:(802)652-2814

XCEL-50EC KFC OVEN STARTUP/ACTIVATION CHECKLIST

Return form to BLODGETT when job is complete. Submit one form with each unit installed.

SERIAL NO._____ MODEL_____DATE OF INSTALLATION_____

STORE ID_____ SERVICE AGENCY_____

ADDRESS_____ ADDRESS_____

CITY_____ STATE_____ ZIP_____ CITY_____ STATE_____ ZIP_____

PHONE:(_____)_____ PHONE:(_____)_____ MECHANIC_____

ELECTRIC: ☐ VOLTAGE_____ PHASE_____ *The rating plate is located on the back of the oven.*

OPERATIONAL START-UP/ACTIVATION PROCEDURE

Information can be found in the Startup Guide or by contacting the factory. Write in N/A if not applicable.

1. Flush Water inlet hose for 30 seconds to remove all debris in the water line before attaching the water hose to oven. Verify water is cold. _____ Yes _____ No
2. Is the oven level? If no, level the unit. _____ Yes _____ No
3. Drain pipe and drain actuator are installed? _____ Yes _____ No
4. Does drain hose reach open drain? Cut to length as needed. Attach the 90° pvc fitting to the end of the hose. _____ Yes _____ No
5. Is the cleaning solution tray installed? Be sure there are no kinks in the chemical line. _____ Yes _____ No
6. COMPONENT FUNCTION TESTS: In “Diag Input” mode, check the operation of the following;

   _____ 1. Door Strike Switch _____ 2. Door Proximity Switch

7. COMPONENT FUNCTION TESTS: In “Diag Output” mode, check the operation of the following;

   _____ 1. Heat On (Light on the SS Relay) _____ 8. Quench Solenoid

   _____ 2. Fan High _____ 9. Chem Pump

   _____ 3. Fan Low _____ 10. Recirc Pump

   _____ 4. Fan Forward _____ 11. Door Lock

   _____ 5. Fan Reverse _____ 12. Contactor

   _____ 6. Cooling Fan _____ 13. Water Solenoid

   _____ 7. Drain Valve (look down drain) _____ 14. Recirc Valve

8. Set the water pressure to 20-PSI flowing. Test 2 quarts in 50 seconds. _____ Yes _____ No
9. Verify there are no water leaks from the connector to the cavity. _____ Yes _____ No
10. Verify blower wheel wing screw is tight. _____ Yes _____ No
11. Verify all metal edges are deburred. _____ Yes _____ No
12. Verify the baffle and racks are installed properly. _____ Yes _____ No
13. Verify incoming voltage matches Data Tag of oven. _____ Yes _____ No
14. Applied voltage between L1 to L2 _____ L2 to L3_____ L1 to L3 _____
15. Amp draw at terminal block L1_____ L2 _____ L3 _____
16. Turn oven on. Allow heat to cycle 3 times. Shut oven off. _____ Yes _____ No
17. Apply your company sticker on “Door Lock” cover. _____ Yes _____ No
18. Remove all protective vinyl from exterior sheet metal. _____ Yes _____ No

Fax completed form to Blodgett at 802-652-2814.

This appliance may be equipped with proprietary features and/or components which are for the exclusive use of the customer indicated above. Further, there may be procedures and/or methods being utilized in preparing this customer’s product which may be proprietary. I hereby certify that this information will be held in confidence and not disclosed to any third party for whom it is not intended.

I hereby certify that the above indicated Blodgett XCEL-50EC KFC oven has been installed, activated and is in good working order.

Service Agent’s Signature _____ Store Manager’s Signature _____

FAST ~ VVC for XL-50EC *Oven*

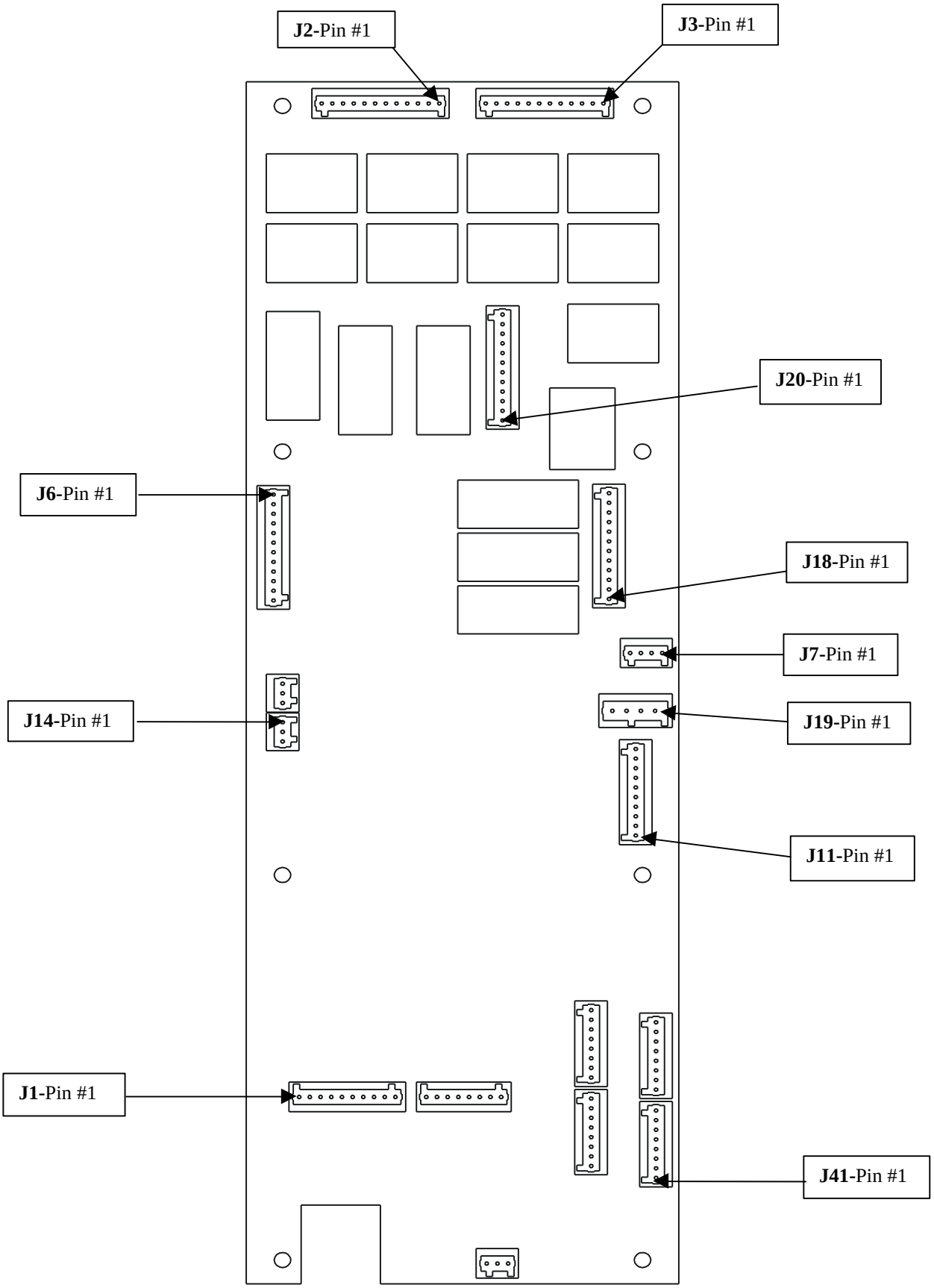
Second Level Programming *(The oven needs to be in the "ON" position)*	
Press and hold the (P) Button for 3 seconds	**Scroll to "Programming"**
Press the (P) Button	**Enter Service Code "2222"**
Press the (P) Button	**Scroll to "Diag Input"**
Strike Switch	**Press button 1, open closed door**
Hinge Switch (Proximity)	**Press button 2, open closed door**
Press the (P) Button	**Scroll to "Diag Output"**
Press the (P) Button	
Press and hold # button to test	**Component Function Test:**
1	**S/S Heat Relay**
2	**Fan High**
3	**Fan Low**
4	**Fan Forward (CCW)**
5	**Fan Reverse (CW)**
6	**Cooling Fan (Blows in)**
7	**Drain Valve Actuator (N.C.)**
8	**Quench Solenoid**
9	**Chemical Pump**
10	**Recirc Pump**
11	**Door Lock Motor**
12	**Mechanical Contactor (N.C.)**
13	**Water Fill Solenoid**
14	**Recirc Solenoid**
	Scroll to exit
Press the (P) Button	

FAST ~ VVC for XL-50EC *Oven*

Second Level programming	
Press and hold the (P) Button for 3 seconds	Scroll to programming
Press the (P) Button	Code 2222
Press the (P) Button	Scroll to “Clean Cycle”
Press the (P) Button	
Corresponding Name	Press ▼ to scroll through times
Pre-Rinse Time	3:00
Fill Time	1:45
Chemical Time	3:45
Wash Time	45:00
Rinse Time	5:00
Pump Fill Time	2:30
Purge Time	2:00
Final Rinse Time	10:00
Flush Time	2:00
Drain Time	3:00
Set Temp	180F
Fan Speed	Very High
Fan Reverse Time	3:00
Soil Shield	NO
Full Bottle Time	17:12
To exit programming	Press ▼ to “EXIT”
Press the (P) Button	

NOTE: Fill times are based on 20 PSI inlet flow pressure

XL-50EC Relay Board – Rear View
Call outs of “J” connectors and #1 pin location



XL-50EC - Trouble shooting test points

~ Using the control diagnostic outputs ~

Key #	Output Components	Test Points on Relay Board Black lead	Red Lead	Voltage AC + DC
1	S/S Heat Relay	Connector **J18**-Pin #5(Empty)	Connector **J20**-Pin #2-OR	24 VDC
6	Cooling Fan	Connector **J18**-Pin #5(Empty)	Connector **J3**-Pin#11-GY	24 VDC
7	Drain Actuator	Connector **J18**-Pin #5(Empty)	Connector **J18**-Pin #7-OR	24 VDC
8	Quench Solenoid	Connector **J18**-Pin #5(Empty)	Connector **J2**-Pin #6-OR	24 VDC
9	Chemical Pump	Connector **J18**-Pin #5(Empty)	Connector **J2**-Pin #8-V	24 VDC
13	Fill (Spritzer) Solenoid	Connector **J18**-Pin #5(Empty)	Connector **J18**- Pin#3-BL	24 VDC
12	*** Mech. Contactor	Connector **J18**-Pin #5(Empty)	Connector **J6**-Pin #5-OR	24 VDC
10	Recirc Pump	Terminal #12, 7+8-WH on rear 24 volt transformer	Connector **J6**- Pin #8-V	**24 VAC**
14	Recirc Solenoid	Terminal #12, 7+8-WH on rear 24 volt transformer	Connector **J3**-Pin #6-Y	

******* **NOTE: Component is normally energized, de-energizes during testing**

Key #	Motor Inverter Drive	Test Points on Relay Board Black lead	Red Lead	Voltage AC + DC
2	Fan High Speed (75Hz)	Connector **J11**-Pin #1-BK	Connector **J2**-Pin#9-GY	23 VDC
			Connector **J2**-Pin#10-GY	0.0 VDC
3	Fan Low Speed (60Hz)	Connector **J11**-Pin #1-BK	Connector **J2**-Pin#9-GY	0.0 VDC
			Connector **J2**-Pin#10-GY	23 VDC
4	Fan Forward (45Hz)	Connector **J11**-Pin #1-BK	Connector **J2**-Pin#9-GY	23 VDC
			Connector **J2**-Pin#10-GY	23 VDC
			Connector **J2**-Pin#11-GY	0.0 VDC
			Connector **J2**-Pin#12-GY	23 VDC
5	Fan Reverse (45Hz)	Connector **J11**-Pin #1-BK	Connector **J2**-Pin#9-GY	23 VDC
			Connector **J2**-Pin#10-GY	23 VDC
			Connector **J2**-Pin#11-GY	23 VDC
			Connector **J2**-Pin#12-GY	0.0 VDC

NOTE: Logic for motor control connects return circuit. "0" volts means circuit completed

Component Resistance Readings

Part Name	Ohms
24VDC Power Supply, Across +V & -V (Unwired DC Voltage)	326
24VDC Power Supply, Across L & N (Unwired Line Voltage)	0.6
Chemical Pump Motor	23.9
Component Transformer- Jumper Removed Primary contacts 1 & 2	6.4
Component Transformer- Jumper Removed Primary contacts 6 & 5	5.5
Component Transformer- with Jumper Primary contacts 6 & 1	11.4
Component Transformer with Jumper Secondary contacts 7 & 12	0.3
Element, 208V (Single element)	10.8
Element, 240V (Single element)	14.5
Quench Solenoid Valve	178
Re-Circ Solenoid Valve	2.3
Recirculation Pump	1.5
Water Solenoid Valve	178

Part Name	Ohms
Control Transformer (Primary)	62.2
Control Transformer (Secondary)	1.2
Cooling Fan	3.7
Door Lock Motor	6
Hitachi (Brown to Blue)	2.5
Hitachi (Brown to Black)	27.65
Hitachi (Blue to Black)	27.65
Liquid Detection Sensor	20
Mechanical Contactor Coil	73.4
Convection Motor Windings Blue to Black	6.2
Connection Motor Windings Brown to Black	6.2
Connection Motor Windings Brown to Blue	6.2
Solid State Heat Relay (SSR)	5.12

Note: Readings may vary some based on meter capability and accuracy

FAST ~ VVC for XL-50EC *Oven*

Error State	Controller Message	Error Cause
Fan Error Detection	"FAN ERROR"	The controller cannot detect the input signal from the "at speed" relay for 15sec, indicating the fan is in fact ON.
Fan Error Detection in clean/delime cycles	"FAN ERROR"	VFD has sensed fan issues. Most likely the drain has malfunctioned and cavity is full of water and chemical.
Clean/Delime Error	"WARNING-DO NOT OPEN DOOR" "DO NOT USE OVEN" "CALL FOR SERVICE"	If a second fan errors occur during the clean/delime cycle.
Strike Switch Error	"ERROR" "STRIKE SWITCH"	If the "Hinge" switch is open, but the "Strike" switch remains closed.
SSR Heat Sink Error	"HEAT SINK ERROR"	The controller cannot detect the input signal from the SSR thermal switch.
Fan Drive Error Detection	"FAN DRIVE ERROR"	The controller cannot detect the Fan Drive input for 10 seconds.
High Limit Error	"HIGH LIMIT ERROR"	If the controller sees an input from the mech contactor for more than 2 sec.
Door Lock Error In clean/Delime cycles	"ERROR-DOOR NOT LOCKED"	Controller cannot detect the door lock input for 5 seconds while in the CLEAN or DELIME mode. Top micro-switch on door lock not fully engaged or bad.
High Limit Temp Error-Cavity	In Idle: "HI LIMIT TEMP" In Cook: "FAIL-HI LIMIT TEMP"	If the cavity temperature (from the cavity probe) is greater than 565°F.
High Temp Error-Cavity	In Idle: "HI TEMP" In Cook: "FAIL-HI TEMP"	If the cavity temp (from the cavity probe) is greater than the set temp of the first profile selected +150°F.
Inverter Drive Probe Error	"BAD DRIVE PROBE- CALL FOR SERVICE"	If the probe in the heat sink of the VFDrive (Hitachi Drive Probe) opens or shorted.
Cavity Probe Error	In Idle: "PROBE OPEN/SHORT" In Cook: "FAIL-PROBE OPEN/SHORT"	If the cavity probe is open or shorted.
Cook Heat Fail Detection	"FAIL-COOK HEAT"	If the cavity temperature doesn't rise 2°F within 5 min.
Communication Error	In Idle: "COMM ERROR CALL FOR SERVICE" In Cook: "FAIL-COMM ERROR"	If the controller looses communication with the relay board.
Recovery Detection	"HEAT ERROR CALL FOR SERVICE"	If the cavity temp doesn't make it from 150°F to 300°F within 5 mins.

NOTE: Faults that occur during clean or delime cycles must be cleared with the "HELP" code, or 4357.

BLODGETT XL50EC - KFC - Motor Drive Parameters

PRESS		DISPLAY
FUNC		d 0 0 1
▼	keep pushing until	A - - -
FUNC	once	A 0 0 1
FUNC	once	
▲	once	0 2
STR	to save	A 0 0 1
▲	once	A 0 0 2
FUNC	once	
▲	keep pushing until	0 1
STR	once	A 0 0 2
▲	keep pushing until	A 0 2 0
FUNC	once	
▲	push + hold until	4 5. 0
STR	to save	A 0 2 0
▲	once	A 0 2 1
FUNC	once	
▲	push + hold until	6 0. 0
STR	to save	A 0 2 1
▲	once	A 0 2 2
FUNC	once	
▲	push + hold until	7 5. 0
STR	to save	A 0 2 2
▲	once	A 0 2 3
FUNC	once	
▲	push + hold until	9 5. 0
STR	to save	A 0 2 3
▲	keep pushing until	A 0 5 1
FUNC	once	
▲	once	0 1
STR	to save	A 0 5 1
▲	once	A 0 5 2
FUNC	once	
▲	push + hold until	4 0. 0
STR	to save	A 0 5 2
▲	twice	A 0 5 4
FUNC	once	
▲	push + hold until	6 0
STR	to save	A 0 5 4
▲	once	A 0 5 5
FUNC	once	
▲	push + hold until	5. 0
STR	to save	A 0 5 5
▲	push + hold until	b 0 1
FUNC	once	
▲	twice	0 2
STR	to save	b 0 0 1
▲	once	b 0 0 2
FUNC	once	
▲	push + hold until	2 5. 0
STR	to save	b 0 0 2
▲	keep pushing until	b 0 0 5
FUNC	once	
▼	keep pushing until	0 1

PRESS		DISPLAY
STR	to save	b 0 0 5
▲	once	b 0 1 2
FUNC	once	
▼	keep pushing until	4. 0 0
STR	to save	b 0 1 2
▲	once	b 0 2 2
FUNC	once	
▼	keep pushing until	3. 6 0
STR	to save	b 0 2 2
▲	once	b 0 8 3
FUNC	once	
▲	keep pushing until	1 0. 0
STR	to save	b 0 8 3
▲	keep pushing until	C 0 0 1
FUNC	once	
▼	keep pushing until	0 0
STR	to save	C 0 0 1
▲	once	C 0 0 2
FUNC	once	
▼	keep pushing until	0 1
STR	once	C 0 0 2
▲	once	C 0 0 3
FUNC	once	
▲	keep pushing until	0 2
STR	once	C 0 0 3
▲	once	C 0 0 4
FUNC	once	
▲	keep pushing until	0 3
STR	to save	C 0 0 4
▲	once	C 0 0 5
FUNC	once	
▼	keep pushing until	1 2
STR	to save	C 0 0 5
▲	keep pushing until	C 0 1 5
FUNC	once	
▼	keep pushing until	0 1
STR	once	C 0 1 5
▲	keep pushing until	C 0 2 2
FUNC	once	
▼	keep pushing until	0 5
STR	once	C 0 2 2
▲	keep pushing until	F 0 0 2
FUNC	once	
▼	keep pushing until	2. 0 0
STR	once	F 0 0 2
▲	once	F 0 0 3
FUNC	once	
▼	keep pushing until	5. 0 0
STR	once	F 0 0 3
▲	keep pushing until	d 0 0 1
FUNC	**Programming Complete**	0. 0
STR	to save	0. 0

BLODGETT XL50EC - KFC - Motor Drive Parameters

Checking last three stored error codes

FUNC		**d**	**0**	**0**	**1**
▲	keep pushing until	**d**	**0**	**8**	**1**
FUNC	once	Last error code will be displayed			
FUNC	once	**d**	**0**	**8**	**1**
▲	keep pushing until	**d**	**0**	**8**	**2**
FUNC	once	2nd to last error code will be displayed			
FUNC	once	**d**	**0**	**8**	**2**
▲	keep pushing until	**d**	**0**	**8**	**3**
FUNC	once	3rd to last error code will be displayed			
FUNC	once	**d**	**0**	**8**	**3**
▼	keep pushing until	**d**	**0**	**0**	**1**
FUNC	**Normal operation**			**0.**	**0**

Clearing stored error codes

FUNC		**d**	**0**	**0**	**1**
▼	keep pushing until	**b**	**-**	**-**	**-**
FUNC	once	**b**	**0**	**0**	**1**
▲	keep pushing until	**b**	**0**	**8**	**4**
FUNC	once			**0**	**0**
FUNC	once	**b**	**0**	**8**	**4**
Press "**STOP**", "**FUNC**", ▲ and ▼ keys and continue to hold all 4 for three seconds. Display will show "**D000**", then "**HC**", then screen will scroll and stop at "**d001**"					
FUNC				**0.**	**0**
STR	to save			**0.**	**0**

	Motor Inverter Error Codes
E_01	Over current event while at constant speed
E_02	Over current event during deceleration
E_03	Over current event during acceleration
E_04	Over current event during other conditions
E_05	Overload protection
E_07	Over-voltage protection
E_08	EEPROM error
E_09	Under-voltage error
E_11	CPU error
E_22	CPU error
E_12	External trip
E_13	USP
E_14	Groung Fault
E_15	Input over-voltage
E_21	Inverter thermal trip
E_35	Thermistor

Sequence of Operation for KFC, XL-50EC oven

Mode Switch in the "OFF" position

You will have AC voltage at:

- The 50 AMP Fuse Holder
- The Line Side of the (K1) Mech. Contactor
- Circuit Breaker (CB1) on the front control panel
- 24 VDC power supply power light on
- The large transformer (T2) on the left hand side in the back of the oven
- The small transformer (T1) on the left hand side in the front of the oven
- The Relay board Input J7-1 & 3 24 VAC Voltage
- The Relay board Input J19-2 & 3 24 VAC Voltage
- The VFD Computer Control Input 15 pin connector J1-1 & 3 24 VAC Voltage
- Mode Switch pins 1 & 3 Line Voltage

You will have DC voltage at:

- Positive Red DC voltage (+24VDC) on the following;
- Relay board J-19-1
- TB-4 on back panel 9 down from top right RD 24
- Proximity Switch
- Door Switch (SW1)
- SSR Heat Sink
- Mode Switch, in on pin 6, out of pin 5 to the relay board J1-8 (closed in the OFF position)
- Door Lock Control Board
- Auxiliary contactor mech. (K1 aux.) in A-1 out A-2 to Relay Board J11-3
- Negative Black DC voltage (-24VDC RTN)
  - Relay Board J19-4
  - Relay Board J11-1
  - Door Lock Control Board
  - A-2 Coil of the Mechanical Contactor
- The Drain Actuator
  - With your Meter Leads:
  - Black on J18-6 and Red on J18-7
  - You will have Negative -24vdc in the Closed position
  - You will have Positive +24vdc in the Open position

Sequence of Operation for KFC, XL-50EC oven

Mode Switch in the "ON" position

- The Relay Board Verifies the Following with DC voltage:
  - The Mode Switch contacts opens between 5 & 6 DC voltage is removed from the Relay Board J11-8
  - The Door Switch (SW1) is closed sending DC voltage to J11-5
  - The Proximity Switch is closed sending DC voltage to J11-2
  - With the Door Lock Switch Open there is no DC voltage present from the Door Lock Control to the Relay Board on J11-7
  - The SSR Heat-Sink is Closed sending DC voltage to J11-6
- Dc voltage supplied out of the RELAY BOARD J6-5 through the CAVITY HIGH LIMIT (SW4) to the COIL OF THE MECHANICAL CONTACTOR (K1)
- The Contacts of the Mechanical Contactor (K1) close and opens the contacts of the Auxiliary contactor mech. (K1 aux.) removing DC voltage from the Relay Board J11-3
- The contacts 1 & 2 and 3 & 4 close on the Mode Switch and send AC voltage to L-1 and L-3 of the Hitachi Motor Inverter Drive.
  - The Relay Board sends DC voltage out J-2 pins 9 & 10 to the Hitachi Inverter pins 3 & 4
  - The Hitachi Inverter speeds up to 75 Hertz
  - The Hitachi Inverter Verifies DC voltage from pins 11 & L back to the Relay Board on J11- 4 & 1 Showing the motor is running
- The Relay Board sends DC voltage out of J20-2 & 3 to the Control Circuit of the SSR powering the Elements
- The controller displays "Preheat" and starts to heat up to 450 degrees
- When the oven reach's a temp of 450 degrees the display will count down from 30 minutes to heat soak the cavity.
- When the 30 minute heat soak counts down the display will read "Load"

Set Program:

- The Relay Board sends DC voltage from J2- 9 & 10 to the Hitachi Inverter 3 & 4 and the motors speeds up to 95 Hertz
- The motor will reverse directions every 7 minutes by switching DC voltage from the Relay Board J2-11 To Pin 1 on the Hitachi for forward and J2-12 to pin 2 on the Hitachi for reverse

Sequence of Operation for KFC, XL-50EC oven

Clean Cycle

- **Steam Cycle**
  - +24vdc is powered out of J18-3 through the TB4-1 on the backpack to the water Spritzer solenoid
  - The water will cycle 1 second ON every 20 seconds from 450 deg to 300 deg
  - Then the water will cycle 2 seconds ON every 20 seconds from 300 deg to 200 deg

- **Prerinse 3:00**
  - Drain Opens
  - +24vdc is powered out of J18-3 through the TB4-1 on the backpack to the water Spritzer solenoid
  - +24vdc is powered out of J2-6 through the TB4-2 on the backpack to the quench solenoid
  - +24AC is powered out of J3-6 through the TB5-3 on the backpack to the re-circulation solenoid

- **Fill Time 1:45**
  - Drain Closed
  - +24vdc is powered out of J18-3 through the TB4-1 on the backpack to the water Spritzer solenoid

- **Chemical Time 3:45**
  - Drain Closed
  - +24vdc is powered out of J2-8 through the TB5-5 on the backpack to the chemical pump

- **Wash Time 45:00**
  - Drain Closed
  - +24AC is powered out of J6-8 through the TB5-1 on the backpack to the re-circulation pump
  - +24AC is powered out of J3-6 through the TB5-3 on the backpack to the re-circulation solenoid

Sequence of Operation for KFC, XL-50EC oven

- **Rinse Time 5:00**
  - Drain Open
  - +24vdc is powered out of J18-3 through the TB4-1 on the backpack to the water Spritzer solenoid
  - +24vdc is powered out of J2-6 through the TB4-2 on the backpack to the quench solenoid
  - +24AC is powered out of J3-6 through the TB5-3 on the backpack to the re-circulation solenoid

- **Pump Fill Time 2:30**
  - Drain Closed
  - +24vdc is powered out of J18-3 through the TB4-1 on the backpack to the water Spritzer solenoid
  - +24vdc is powered out of J2-6 through the TB4-2 on the backpack to the quench solenoid
  - +24AC is powered out of J3-6 through the TB5-3 on the backpack to the re-circulation solenoid

- **Purge Time 2:00**
  - Drain Closed
  - +24AC is powered out of J6-8 through the TB5-1 on the backpack to the re-circulation pump
  - +24AC is powered out of J3-6 through the TB5-3 on the backpack to the re-circulation solenoid

- **Final Rinse 10:00**
  - Drain Open
  - +24vdc is powered out of J18-3 through the TB4-1 on the backpack to the water Spritzer solenoid
  - +24vdc is powered out of J2-6 through the TB4-2 on the backpack to the quench solenoid
  - +24AC is powered out of J3-6 through the TB5-3 on the backpack to the re-circulation solenoid

Sequence of Operation for KFC, XL-50EC oven

- **Flush Time 2:00**
  - Drain Open
  - +24vdc is powered out of J2-6 through the TB4-2 on the backpack to the quench solenoid
  - +24AC is powered out of J3-6 through the TB5-3 on the backpack to the re-circulation solenoid

- **Final Drain Time 3:00**
  - Drain Open
  - +24vdc is powered out of J2-6 through the TB4-2 on the backpack to the quench solenoid
  - +24AC is powered out of J3-6 through the TB5-3 on the backpack to the re-circulation solenoid

FAST ~ VVC for XL-50EC *Oven*

Clean Cycle Programming		
Press the clean Button	"Clean"	
Press the (P) Button	"Is the Cavity clear of Debris"	
Press the (P) Button	"Is the Drain Hose Connected"	
Press the (P) Button	"Steam Cycle"	
Water Spritz for 1 second every 20 seconds From 450°F to 300°F		
Water Spritz for 2 second every 20 seconds From 300°F to 200°F		
	Sequence Time	Count Down Time
Pre-Rinse Time	3:00	1:20
Fill Time	1:45	1:17
Chemical Time	3:45	1:16
Wash Time	45:00	1:12
Rinse Time	5:00	0:25
Pump Fill Time	2:30	0:20
Purge Time	2:00	0:17
Final Rinse Time	10:00	0:15
Flush Time	2:00	0:05
Drain Time	3:00	0:03
Maintains Set Temp	180F	
Turn Oven Off	Wipe Cavity Clean	

NOTE: Fill times are based on 20 PSI inlet flow pressure

Temperature Vs Resistance Probe Chart

°F	°C	Ohms	°F	°C	Ohms
60	16	1059	235	113	1422
65	18	1067	240	116	1432
70	21	1080	245	118	1442
75	24	1090	250	121	1453
80	27	1099	255	124	1463
85	29	1112	260	127	1473
90	32	1122	265	130	1483
95	35	1133	270	132	1493
100	38	1143	275	135	1503
105	41	1153	280	138	1514
110	43	1164	290	143	1534
115	46	1174	295	146	1544
120	49	1185	300	149	1554
125	52	1195	305	152	1564
130	55	1206	310	155	1574
135	57	1216	315	157	1584
140	60	1226	320	160	1594
145	63	1237	325	163	1604
150	66	1247	330	166	1614
155	68	1258	335	169	1624
160	71	1268	340	171	1634
165	74	1278	345	174	1644
170	77	1289	350	177	1654
175	80	1299	355	180	1664
180	82	1309	360	182	1674
185	85	1320	365	185	1684
190	88	1330	370	188	1694
200	93	1350	375	191	1704
205	96	1361	380	193	1714
210	99	1371	385	196	1724
215	102	1381	390	199	1734
220	105	1391	395	202	1744
225	107	1402	400	205	1754
230	110	1412	405	207	1764

°F	°C	Ohms	°F	°C	Ohms
410	210	1774	460	238	1872
415	213	1783	465	241	1882
420	216	1793	470	244	1892
425	219	1803	475	246	1901
430	221	1813	480	249	1911
435	224	1823	485	252	1921
440	227	1833	490	254	1931
445	230	1843	495	255	1940
450	232	1852	500	260	1950
455	235	1862			

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